

We Claim:

1. An active electrode composition, comprising:

a nickel hydroxide material;

a graphite having a crystallite height  $L_c$  of at least

5 125 nm; and

a polymeric binder.

2. The active composition of claim 1, wherein said active composition is a paste.

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3. The active composition of claim 1, wherein said polymeric binder is an elastomeric polymer.

4. The active composition of claim 3, wherein said

15 elastomeric polymer is a material selected from the group consisting of styrene-butadiene, styrene-butadiene block copolymer, styrene-isoprene-styrene block copolymer and styrene-ethylene-butadiene-styrene block copolymer.

20 5. The active composition of claim 1, wherein said graphite has a crystallite height  $L_c$  of at least 175 nm.

6. The active composition of claim 1, wherein said graphite has an interlayer distance  $c/2$  between .335 nm and .345 nm.

5 7. The active composition of claim 1, wherein said graphite material has a BET surface area less than 15 square meters per gram.

8. The active composition of claim 1, wherein said active  
10 composition comprises at least 10 weight percent of said graphite material.

9. An electrode for a battery cell, comprising:

a nickel hydroxide material;

15 a graphite having a crystallite size  $L_c$  of at least 125 nm; and

and

a polymeric binder.

20 10. The electrode of claim 9, wherein said polymeric binder is an elastomeric polymer.

11. The electrode of claim 9, wherein said active composition is a paste.

12. The electrode of claim 10, wherein said elastomeric polymer comprises a material selected from the group consisting of styrene-butadiene, styrene-butadiene block copolymer, styrene-isoprene-styrene block copolymer and styrene-ethylene-butadiene-styrene block copolymer.

13. The electrode of claim 9, wherein said graphite has a crystallite height  $L_c$  is at least 175 nm.

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14. The electrode of claim 9, wherein said active composition is affixed to a conductive substrate, said substrate selected from the group consisting expanded metal, perforated metal, screen or foil.

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15. A nickel-metal hydride battery cell, comprising:  
a positive electrode comprising an active composition comprising a nickel hydroxide material, a graphite material having a crystallite height of at least 125 nm, and a polymeric binder;  
a negative electrode comprising a hydrogen storage alloy active material; and  
an alkaline electrolyte.

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16. The battery cell of claim 18, wherein said polymeric binder is an elastomeric polymer.

17. The electrochemical device of claim 18, wherein said  
5 active composition is a paste.

18. The electrochemical device of claim 19, wherein said elastomeric polymer comprises a material selected from the group consisting of styrene-butadiene, styrene-butadiene  
10 block copolymer, styrene-isoprene-styrene block copolymer and styrene-ethylene-butadiene-styrene block copolymer.  
styrene-butadiene.

19. The electrochemical device of claim 18, wherein said  
15 graphite has a crystallite height  $L_c$  of at least 175 nm.